STATE OF MARYLAND

DHMH

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July 2, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:25
Reporting for the week ending 06/26/10 (MMWR Week #25)

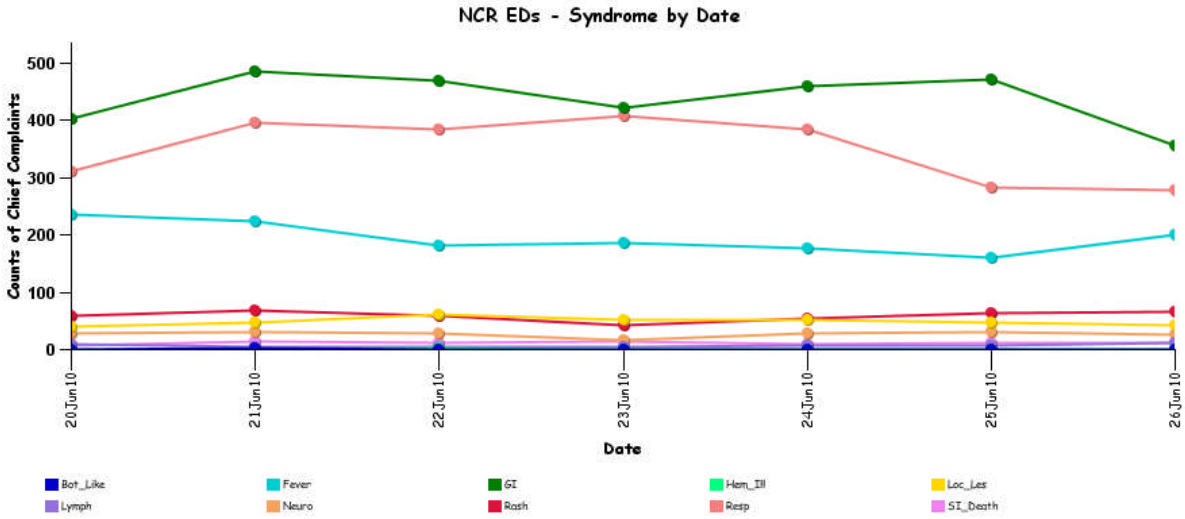
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

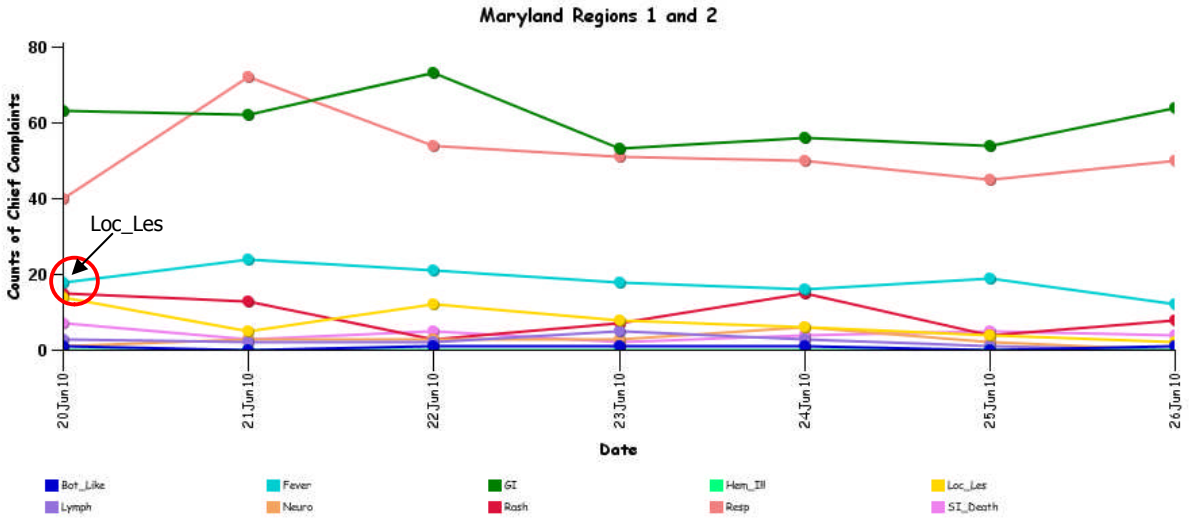
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

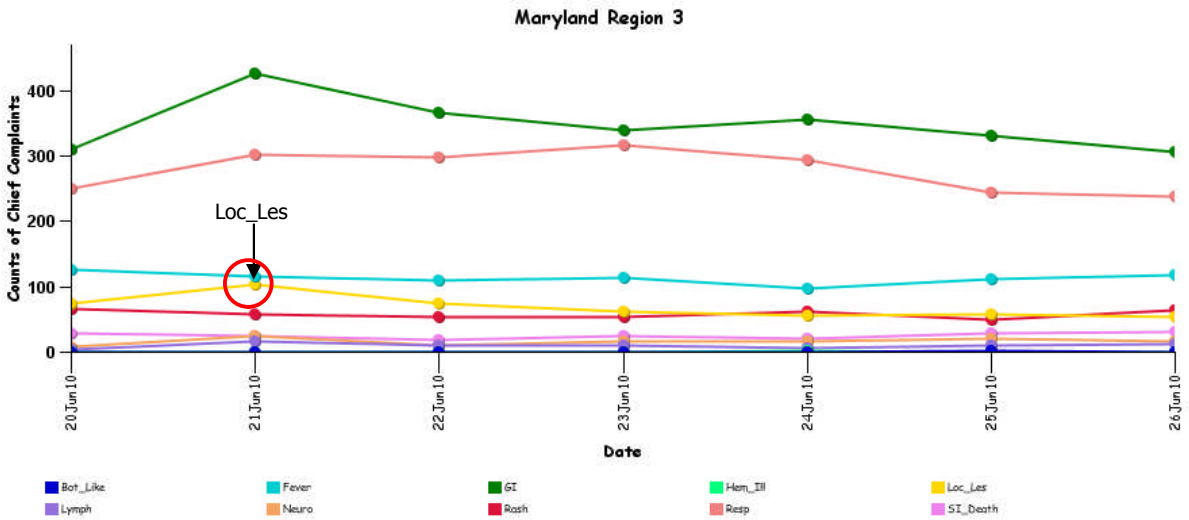


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

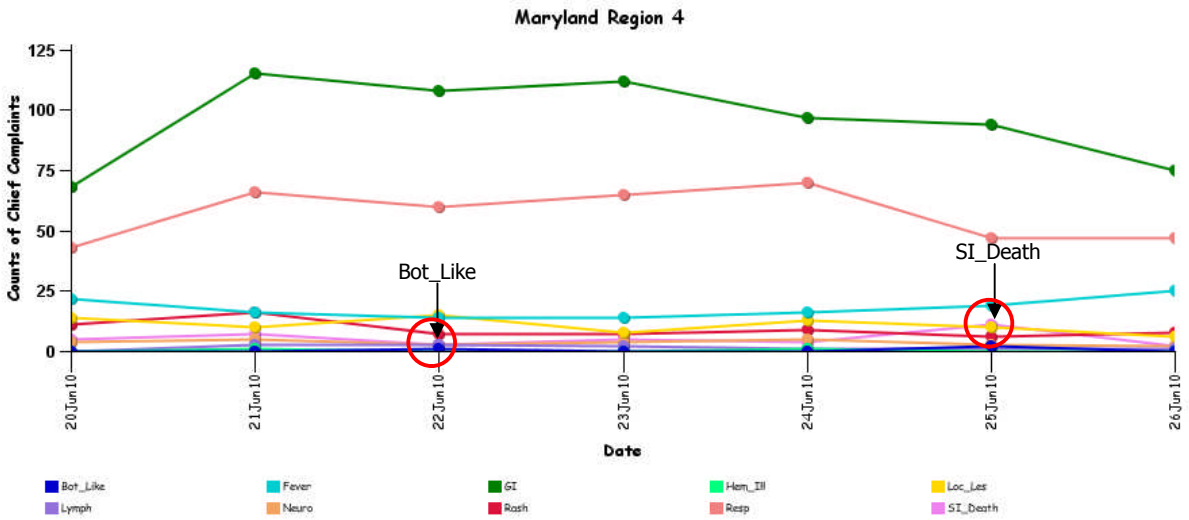
MARYLAND ESSENCE:



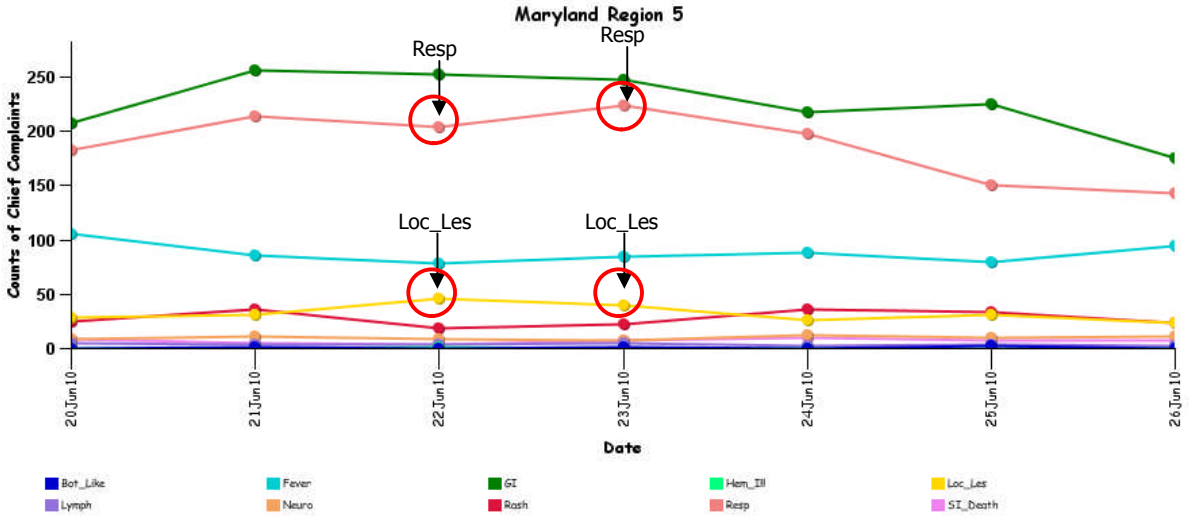
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

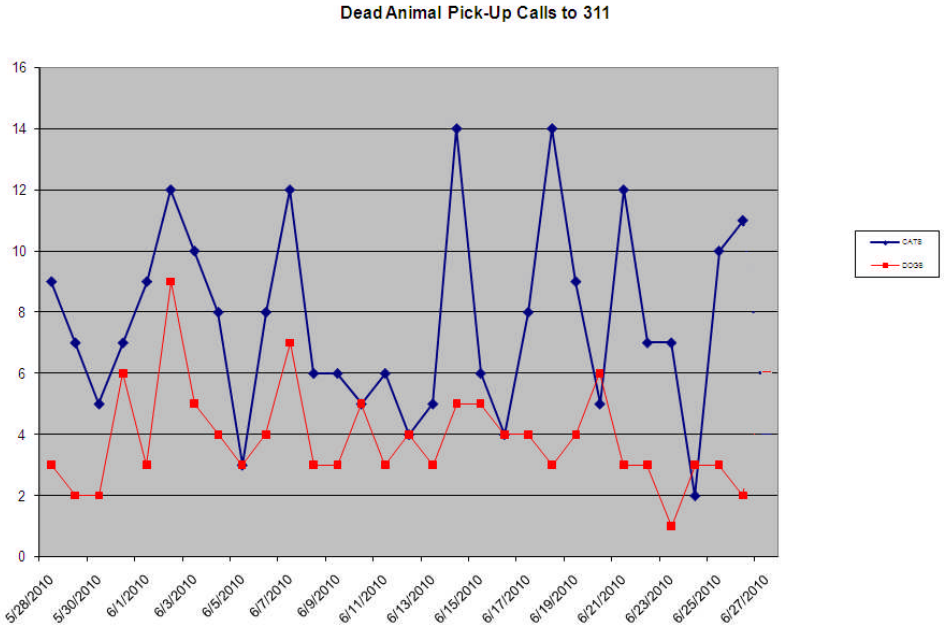


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



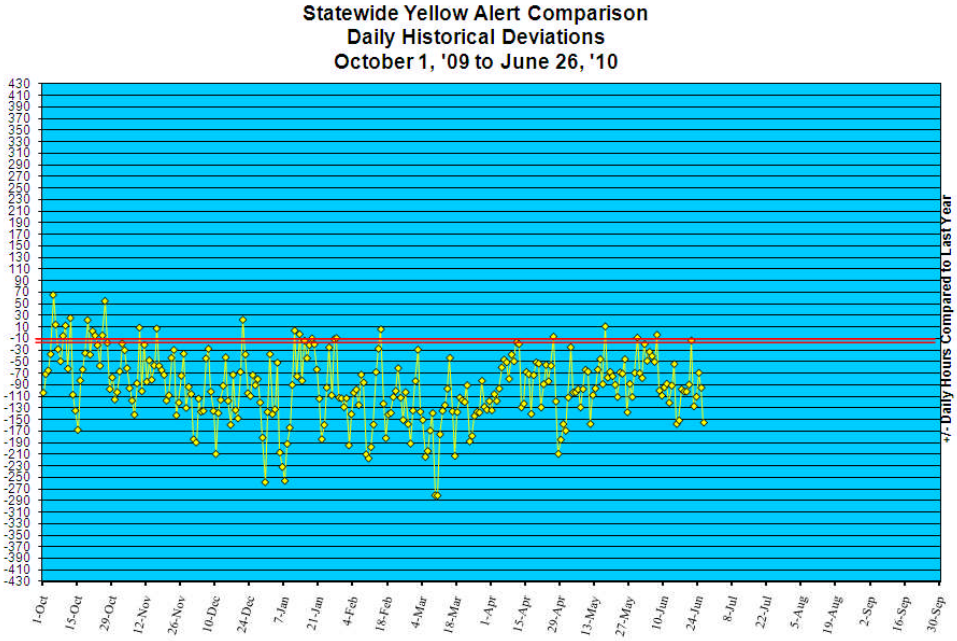
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 20 - June 26, 2010):	08	0
Prior week (June 13 - June 19, 2010):	14	0
Week#25, 2009 (June 21 - June 27, 2010):	19	0

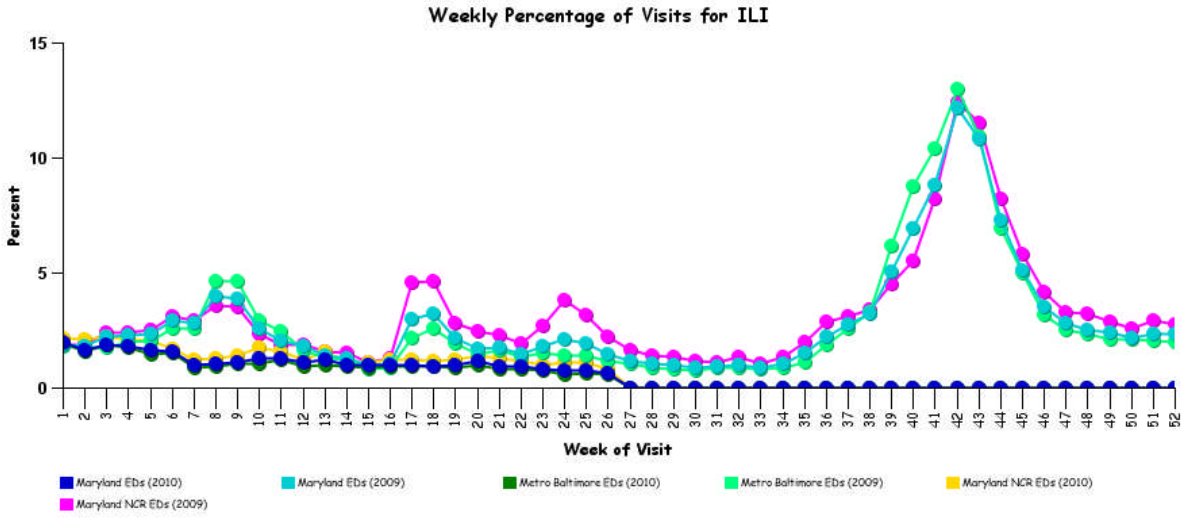
1 outbreak was reported to DHMH during MMWR Week 25 (June 20-26, 2010)

1 Rash illness outbreak
1 outbreak of SCABIES in a Daycare Center

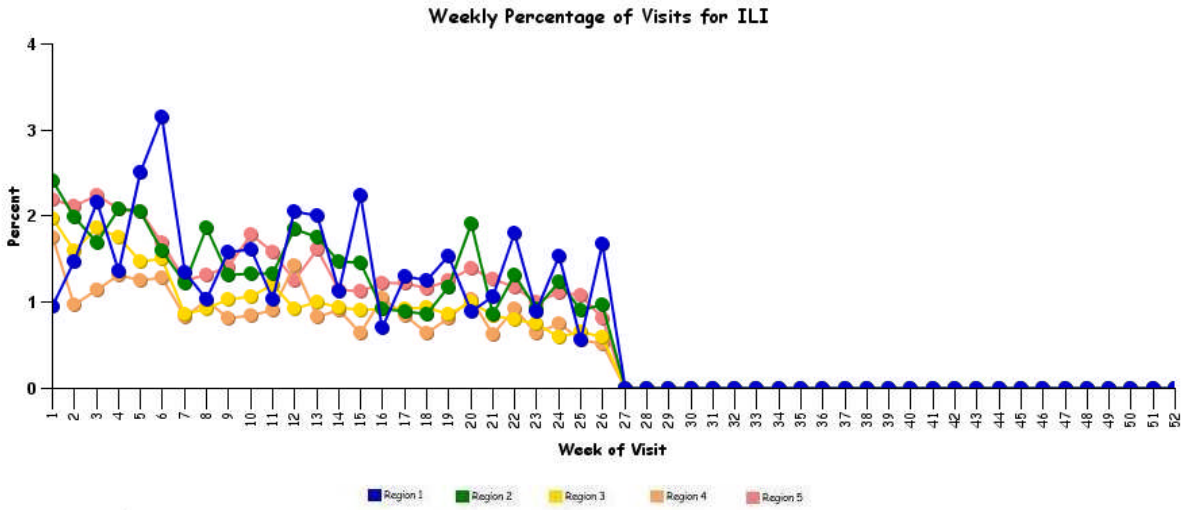
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



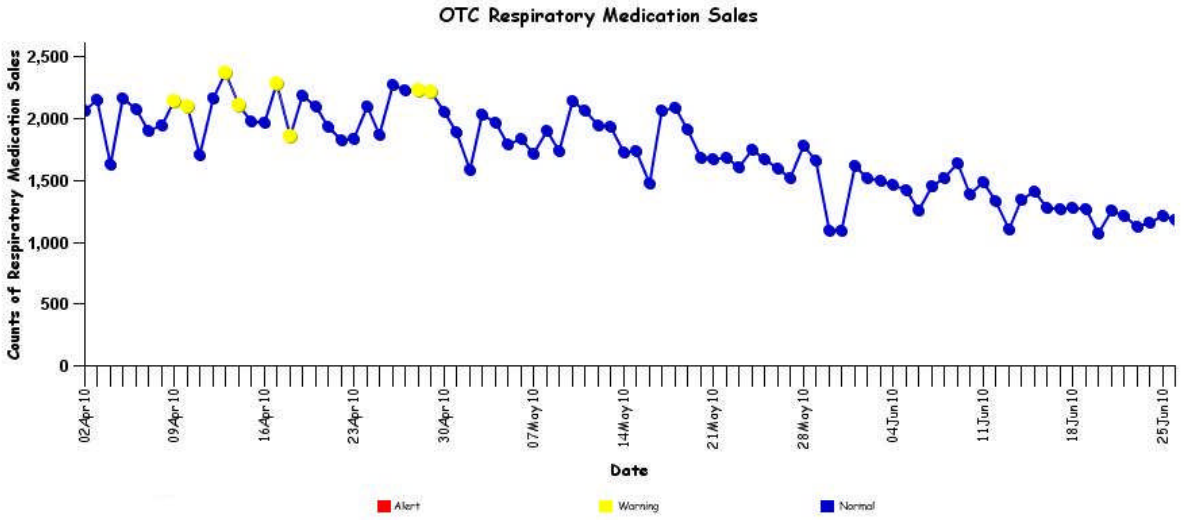
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/Documents/Plans/PandemicInfluenzaResponseAnnex(Version7.3).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of June 08, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 499, of which 295 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC, WORLD HEALTH ORGANIZATION UPDATE (H1N1): As of Sun 20 Jun 2010, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 18 209 deaths. The WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and Member States and through monitoring of multiple sources of information.

Worldwide, overall pandemic and seasonal influenza activity remains low. Active transmission of pandemic influenza virus persists in parts of the tropics, particularly in the Caribbean, West Africa, and South and Southeast Asia. Pandemic and seasonal influenza viruses have been detected only sporadically during the early part of winter in the temperate regions of the southern hemisphere. Global circulation of seasonal influenza virus type B viruses has declined substantially and persists at low levels in parts of East Asia, Central Africa, and Central America. During the past month, seasonal influenza H3N2 viruses have been detected at low levels across parts of East Africa and South America.

In most countries of the temperate zone of the southern hemisphere (Chile, Argentina, South Africa, Australia, and New Zealand) pandemic and seasonal influenza viruses have been detected only sporadically during the 1st 2 weeks of June 2010 and overall levels of respiratory disease in the population remain low. In Chile, during the 2nd week of June, approximately 1 percent samples tested positive for influenza (the majority were pandemic influenza virus). In Argentina, small numbers of influenza type B viruses were detected during early June 2010.

In both Chile and Argentina, respiratory syncytial virus (RSV) continued to be the predominant circulating respiratory virus. In South Africa, very small numbers of seasonal H3N2 and type B viruses were detected since the beginning of June 2010. In both Australia and New Zealand, levels of influenza-like illnesses (ILI) are below recent historical seasonal levels and there have been only sporadic detections of seasonal or pandemic influenza virus during the 1st half of June 2010.

In Asia, the most active areas pandemic influenza virus transmission currently are in parts of southern India, Bangladesh, Singapore, and Malaysia. In India, there have been recent reports of increasing pandemic influenza activity in the southern state of Kerala, including reports of small numbers of severe and fatal cases, particularly among pregnant women; the extent of illness in the community is currently being assessed. In Bangladesh, pandemic and seasonal influenza type B viruses continued to co-circulate at low levels during early June 2010. In Thailand, limited data suggests that there continues to be low levels of pandemic and seasonal influenza virus co-circulating in parts of the country.

In Singapore, during the 3rd week of June 2010, levels of ARI (acute respiratory infections) declined below warning levels and the proportion of patients with ILI (influenza-like illness) testing positive for pandemic influenza virus fell from 28 percent to 19 percent. In Malaysia, limited data suggests that overall pandemic influenza activity declined throughout June 2010 as pandemic virus continued to circulate at low levels. Throughout East Asia, overall pandemic and seasonal activity remained very low to sporadic. In China and Japan, levels of ILI remained at or below baseline levels for the summer months. Low and declining levels of seasonal influenza type B viruses continued to circulate across China, Hong Kong SAR (China), and Chinese Taipei.

In the tropical regions of the Americas, overall pandemic and seasonal influenza activity remained very low, except in Cuba and Colombia, where low levels of pandemic influenza virus continue to circulate (approximately 8 percent of respiratory samples tested positive for pandemic influenza in both countries during the early part of June 2010). In Cuba, pandemic influenza virus transmission remains active but has declined substantially since peaking during mid-April to mid-May 2010; no new fatal cases have been reported over the past 4 reporting weeks.

In Colombia, persistent but low level circulation of pandemic influenza virus has increased slightly since late May 2010; however, the overall level of respiratory diseases in the population was reported to be low to moderate during mid June 2010. In several countries of the region, there has been recent circulation of seasonal influenza viruses including type A (Venezuela during May 2010) and B (Bolivia during March and May 2010; El Salvador during late May and early June 2010). Variable ongoing co-circulation of other respiratory viruses, including RSV, continues to be reported across the region.

In sub-Saharan Africa, pandemic and seasonal influenza activity has been limited to several countries. Ghana, in West Africa, continued to have active circulation of pandemic influenza virus long after overall activity peaked during early April 2010; the proportion of respiratory samples testing positive for pandemic influenza virus increased from 16 percent to 23 percent during the 1st 2 weeks of June 2010. Seasonal influenza type B viruses continue to circulate in parts of central and southern Africa, most notably in Cameroon.

As reported in previous updates, small numbers of seasonal H3N2 viruses continue to be detected across Africa, particularly in eastern Africa; the most recent detections have been reported in Ghana, Kenya, and South Africa during the 2nd week of June 2010. The persistence of H3N2 in this area over time very likely represents sustained community transmission of the virus.

Overall, in the temperate regions of the northern hemisphere (North America and Europe), pandemic and seasonal influenza viruses have been detected sporadically or at very low levels during the past month.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

SHIGELLOSIS (PENNSYLVANIA): 26 June 2010, The Allegheny County Health Department is warning everyone to remember to wash their hands to guard against a bacterial infection known as shigellosis that has seen a spike in cases in recent weeks. "_Shigella_ bacteria are highly contagious. It can spread very easily from person to person or through contaminated food, water or beverages when people are not careful about thoroughly washing after going to the toilet, changing diapers or caring for someone who's ill with diarrhea," said Guillermo Cole, of the Allegheny County Health Department. _Shigella_ causes bloody diarrhea, fever and vomiting. Symptoms can last for several days. There are currently 97 cases reported in Allegheny County, Pennsylvania, compared to a dozen cases for all of 2008. The Health Department has been targeting day cares in an attempt to keep shigellosis from spreading. "What we're doing specifically with day care centers is requiring any worker or child with diarrhea to be excluded until they have a negative shigella test and no diarrhea for at least 24 hours," said Cole. The outbreak began in October [2009], but cases have spiked in recent weeks. "You could pass it to somebody else if you don't wash your hands, and then they get it on their hands or they handle food that they then ingest," said Cole. The health department is offering free stickers based on satires of famous literature such as The Wizard of Oz and Moby Dick reminding everyone to wash their hands. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE CHESTER, FROZEN ENTREE (USA): 26 June 2010, The Centers for Disease Control and Prevention (CDC) is collaborating with public health officials in many states, the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA/FSIS), and the U.S. Food and Drug Administration (FDA) to investigate a multistate outbreak of Salmonella serotype Chester infections. Investigators are using DNA analysis of Salmonella bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. As of 9:00 AM EDT on 25 Jun 2010, a total of 37 individuals infected with a matching strain of Salmonella Chester have been reported from 18 states since 11 Apr 2010. The number of ill people identified in each state with this strain is as follows: AK (1), CA (5), CO (2), GA (7), IL (1), KY (1), MA (2), MN (2), MO (1), NC (1), OK (1), OR (2), SC (2), TN (1), TX (1), UT (2), VA (4), and WA (1). Among those for whom information is available about when symptoms started, illnesses began between 5 Apr 2010 and 3 Jun 2010. Case-patients range in age from <1 to 88 years old, and the median age is 36 years. Fifty-five percent of patients are female. Among the 19 patients with available hospitalization information, 7 (37 percent) were hospitalized. No deaths have been reported. During 14-18 Jun 2010, the CDC and public health officials in multiple states conducted an epidemiologic study by comparing foods eaten by 19 ill and 22 well persons. Analysis of this study suggests eating a Marie Callender's frozen meal was a source of illness. Ill persons (89 percent) were significantly more likely than well persons (14 percent) to report eating a frozen meal. All ill persons (100 percent) who ate frozen meals reported eating a Marie Callender's frozen meal. None (0 percent) of the well persons who ate a frozen meal reported eating a Marie Callender's frozen meal. There are insufficient data from this study to implicate a specific frozen meal type. However, many of the ill persons have reported eating a Marie Callender's Cheesy Chicken and & Rice frozen entree in the week before becoming ill. This investigation is ongoing. The CDC and state and local public health partners are continuing surveillance to identify new cases and identify the contaminated product or products that are causing illness. We will update the public on the progress of this nvestigation as information becomes available. On 18 Jun 2010, the Minnesota Department of Agriculture Laboratory announced it had isolated Salmonella Chester from an unopened package of Marie Callender's Cheesy Chicken & Rice single-serve frozen entree collected from the home of one of the ill people. The DNA fingerprint of the isolate matches the outbreak strain. On June 17, 2010, ConAgra Foods announced a precautionary recall of Marie Callender's Cheesy Chicken & Rice single-serve frozen entrees after being informed by

the CDC of a possible association between this product and the outbreak of Salmonella Chester infections. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, SENTINEL AVIAN (FLORIDA): 23 June 2010, For the 1st time in 30 years mosquito control officials have found traces of Eastern equine encephalitis (EEE) in Martin County. Two chickens living on farmland along Cove Road tested positive for the disease. "It could be what happens every year you get a little bit of an undercurrent of mosquito disease and then it goes away or it may be that this is just the beginning of mosquito disease. We don't know yet," said Gene Lemire, Mosquito Control director for the county. Lemire says the breed [species of mosquito] that carries the disease lives inland, in swampy areas, and does not come out during the day. He says typically the mosquito will bite a bird which is infected with equine encephalitis then go on to bite either a horse or a human to pass it along. [Horses cannot pass the disease to humans and humans cannot pass it horses. The mosquito can pass the disease to either its equine victim or its human victim.] If a human contracts the disease it results in flu-like symptoms -- like headache, fever, dizziness and fatigue -- but for a horse it can be more serious, even deadly. [Occasionally infection in humans can lead to severe central nervous system disease and death. "Horses can be vaccinated and should be and they won't get the disease," said Lemire. Health officials encourage the rest of us to practice the 5 "D's"
* Dusk and Dawn -- Avoid being outdoors when mosquitoes are seeking blood, for many species this is during the dusk and dawn hours.
* Dress -- Wear clothing that covers skin.
* DEET -- When the potential exists for exposure to mosquitoes, repellents containing DEET are recommended. Products with concentrations up to 30 percent DEET are generally recommended for most situations. (It is not recommended to use DEET on children younger than 2 months old. Instead, infants should be kept indoors or mosquito netting used over carriers when mosquitoes are present). Always read the manufacturer's directions carefully before you put on a repellent.
* Drainage -- Check around your home to rid the area of standing water, where mosquitoes can lay their eggs. Horse owners are encouraged to vaccinate their animals to prevent viral infection. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

Anthrax, HUMAN, BOVINE (Kazakhstan): 26 June 2010, The Ministry of Emergencies of Kazakhstan has reported that a 2nd patient has died from anthrax in the Pavlodar oblast of Kazakhstan. This patient was a woman who died on 21 June 2010.
The cause of the anthrax outbreak was slaughtering of a sick bull and distribution of the beef to the residents of Karakol and Rebrovka villages. The man who slaughtered the bull felt sick already on 11 June 2010. He did not apply for medical help and tried self treatment. He was later transported to the hospital 19 June in a bad condition and died next day. Sometime later several other patients were also hospitalized, including the woman who died recently. A total of 5 more patients with confirmed anthrax are still in the hospital. There are about 80 contact persons in 2 villages and all are receiving preventive antibiotics. The sanitary services confiscated and destroyed several kilograms of contaminated beef. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS (PANAMA): 25 Jun 2010, The Ministry of Health reported this Wednesday [24 Jun 2010] that the cases of equine encephalitis remained at 15, of whom one died. A statement from the ministry said that 4 people living in the province of Darien are under observation at a public hospital. The ministry indicated that 63 people are under observation for presenting symptoms of the disease. The Ministry of Health (MOH) reported that this Wednesday [24 Jun 2010] there were no recorded cases of equine encephalitis, so that the number of cases admitted to Children's Hospital, remains at 15. Of the 15 cases who were admitted to hospital since the start of the event [outbreak], 4 remain hospitalized in stable condition, 10 were discharged, and one died. During field investigation in Darien and Panama East, so far there remain 63 individuals suspected [of having the infection] who have not required hospitalization, from whom blood (samples) were obtained for laboratory studies and monitoring. The MOH reiterates that it is important that people with any signs or symptoms such as fever, headache, bone pain, irritability if it involves children less than one year of age, vomiting or diarrhea, contact their nearest health centre for medical evaluation. For its part, the Directorate of Health Promotion has trained more than 2000 people in the provinces of Darien and Panama Este, among them students and local authorities to pay visits, house by house. Also, 10 000 leaflets and posters have been distributed giving accurate information for the prevention of this disease. At the same time, during this week public information officials will visit the communities of Santa Librada, El Mercadeo, Yaviza, Nuevo Progreso, and Aguas Frias in Darien, and this Saturday [26 Jun 2010] a mosquito breeding site elimination campaign will take place in the metropolitan health Region of Nuevo Tocumen. The MOH has established sentinel posts in medical centers in the province of Darien, to capture suspected [infected individuals] and cases of febrile patients in the area. In the Meteti Medical Center, health personnel will be available to attend hospitalized patients and emergency cases. [The MOH] reiterates to the population that to reduce the possibility that the disease moves to other communities, they should increase the recommended sanitary measures such as eliminating mosquito breeding sites, pouring lime into latrines, use of mosquito bed nets and clothing that covers most of the body (long pants, long sleeved shirts), and mosquito repellents. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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